

Remarks

The Examiner is thanked for his time during a personal interview on March 29, 2005.

The Examiner is thanked for implicitly finding allowable subject matter in claims 14, 18-29, and 25.

Reconsideration of this Application is respectfully requested.

Claims 10 and 12-14 are sought to be amended. Claims 1-26 are pending in the application, with 1, 8, 10, and 26 being the independent claims.

Based on the above amendments and following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Provisional Nonstatutory Double Patenting Rejection

The Examiner has provisionally rejected claims 1-26 under the judicially created doctrine of obviousness-type double patenting for allegedly being unpatentable over claims 1-28 of co-pending Application No. 09/339,506 and claims 40-57 and 60-64 of co-pending Application No. 09/907,902.

Pursuant to M.P.E.P. Section 804(I)(B), since co-pending Application Nos. 09/339,506 and 09/907,902 have not been allowed, the Examiner should maintain the double patenting rejection in this instant application as a 'provisional' double patenting rejection, which can be converted into a double patenting rejection when the co-pending Application Nos. 09/339,506 and/or 09/907,902 issue as patents. Applicant will appropriately address the provisional double patenting rejection in the event it is converted to an actual double patenting rejection pursuant to M.P.E.P. Section 804(I)(B) after co-pending Application Nos. 09/339,506 and/or 09/907,902 issue as patents.

Rejections under 35 U.S.C. § 102(e) and 103(a)

Claims 1-13, 15-17, 24, and 26 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,814,425 to Kataoka et al. ("Kataoka"). Claims 20 and 21 were rejected under 35 U.S.C. § 103(a) ("103") as being unpatentable over Kataoka in view of an article to Kirk et al. ("Kirk"). Claims 22 were rejected under 103 as being unpatentable over Kataoka in view of U.S. Patent No. 5,923,423 to Sawartari et al. ("Sawartari"). Claim 23 was rejected under 103 as being unpatentable over Kataoka in view of U.S. Patent No. 4,732,483 to Biegen ("Biegen"). Applicant traverses these rejections.

Claims 1-9

As discussed with the Examiner during the above-mentioned interview, Claims 1 and 8 of the pending application contain features similar to the allowable subject matter that was found for claims 1 and 8 in co-pending application 09/339,506, which were found allowable over the same applied patents noted above. Thus, the Examiner is asked to reconsider and withdraw the inconsistent rejection in the present case of claims 1 and 8, and based on their dependencies, claims 2-7 and 9.

Claims 10-26

Claim 10 recites at least illuminating periodic patterns in an object plane of an object space of the optical system, the object plane extending over a range of depths through the object space. Kataoka does not teach or suggest this feature.

Claim 26 recites at least illumination means for projecting an image of a reticle having a plurality of periodic pattern features thereon within a volume of image space and means for detecting the image at different locations comprising different depths of focus within the volume of image space.

Kataoka teaches an object plane being parallel or substantially parallel to an image plane throughout the specification and figures. As noted by the Examiner, at col. 7, lines 58-62 Kataoka teaches that a curvature and tilt of an image plane of a projection lens as passed through the resist process can be detected. However, Kataoka does not

teach or suggest the object plane extending over a range of depths through the object space, as recited in claim 10, or means for detecting the image at different locations comprising different depths of focus within the volume of image space, as recited in claim 26. Support for this feature is found in a paragraph spanning pages 9-10 in the instant specification discussing Figure 2, for example. None of the other applied patents or the article remedy the deficiency in Kataoka. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw this rejection. Also, at least based on their dependency to claims 10 and 26, respectfully, claims 11-25 should also be found allowable over the applied patents and article.

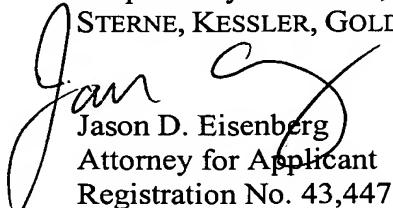
Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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